

AMENDMENTS TO THE CLAIMS

What is claimed is:

1. (Currently amended) A method of simulating fill flash in a camera system comprising the steps of:
 - a) determining distances from the camera to objects in a scene; and
 - b) taking a photograph of the scene without using a flash; and
 - c) selectively adjusting the brightness of regions of the photograph based on the distance information.
2. (Currently amended) The method of claim 1 wherein determining the distances from the camera to objects in the scene comprises:
 - a) taking a series of photographs with the camera configured to focus on objects at various distances from the camera; and
 - b) ~~storing said photographs along with a focus distance for each photograph;~~
and
 - c) analyzing the series of photographs and corresponding focus distances.
3. (Original) The method of claim 2 wherein the analysis of the series of photographs comprises computing a spatial contrast metric.
4. (Currently amended) The method of claim 3 wherein determining the distances to objects at locations in the scene further comprises:
 - a) locating the particular photograph in the series of photographs with the spatial contrast metric indicating that objects at that location in the scene are more nearly in focus in that particular photograph than in any other in the series of photographs; and
 - b) identifying the distance from the camera to objects at that location in the scene as the focus distance stored in connection with that particular photograph.
5. (Original) The method of claim 1 wherein regions containing objects closer to the camera are lightened in the resulting photograph in relation to regions containing objects farther from the camera.

6. (Original) The method of claim 5 wherein regions are modified in the resulting photograph in accordance with the inverse square law.
7. (Currently amended) A camera system which simulates fill flash by:
 - a) determining distances from the camera to objects in a scene; and
 - b) taking a photograph of the scene without using a flash; and
 - e) selectively adjusting the brightness of regions of the photograph based on the distances.
8. (Currently amended) The camera system of claim 7 wherein the determining the distances from the camera to objects in the scene comprises:
 - a) taking a series of photographs with the camera configured to focus on objects at various distances from the camera; and
 - b) ~~storing said photographs along with a focus distance for each photograph;~~
and
 - e) analyzing the series of photographs and corresponding focus distances to determine the object distances.
9. (Currently amended) The camera system of claim 8, further comprising which ~~comprises~~ a computer separate from the camera, and wherein the series of trial photographs and their focus distances are transmitted to the separate computer for analysis and the simulation of fill flash.
10. (Original) The camera system of claim 8 wherein the analysis of the series of photographs comprises computing a spatial contrast metric.
11. (Currently amended) The camera system of claim 8 wherein determining the distances to objects at locations in the scene further comprises:
 - a) locating the particular photograph in the series of photographs with the spatial contrast metric indicating that objects at that location in the

scene ~~in~~ are more nearly in focus in that particular photograph than in any other in the series of photographs; and

- b) identifying the distance from the camera to objects at that location in the scene as the camera focus distance stored in connection with that particular photograph.

12. (Original) The camera system of claim 7 wherein the system lightens regions containing objects closer to the camera in the resulting photograph in relation to regions containing objects farther from the camera.

13. (Original) The camera system of claim 12 wherein the system modifies the brightness of regions in the resulting photograph in accordance with the inverse square law.

14. (Currently amended) A camera, comprising:

- a) means for determining distances from the camera to objects in a scene; and
- b) means for taking a photograph without using a flash; and
- e) means for selectively modifying the brightness of regions in the resulting photograph based on the distances.

15. (New) The method of claim 1, further comprising varying the amount of brightness adjustment in response to a user control.

16. (New) The method of claim 15, wherein the user control is comprised in the camera.

17. (New) The method of claim 15, further comprising displaying the effect of the brightness adjustment on a display.

18. (New) The method of claim 17, wherein the display is comprised in the camera.

19. (New) The camera system of claim 7, wherein the camera system further simulates fill flash by varying the amount of brightness adjustment in response to a user control.
20. (New) The camera system of claim 19, wherein the user control is comprised in the camera.
21. (New) The camera system of claim 7, wherein the camera system further simulates fill flash by displaying the effect of the brightness adjustment on a display.
22. (New) The camera system of claim 21, wherein the display is comprised in the camera.
23. (New) The method of claim 2, wherein one of the series of photographs taken in determining the distances from the camera to objects in the scene is used as the photograph in which the brightness of regions is selectively adjusted.
24. (New) The camera system of claim 8, wherein one of the series of photographs taken in determining the distances from the camera to objects in the scene is used as the photograph in which the brightness of regions is selectively adjusted.